

Application No.: 09/309,274

Docket No.: 00-VE09.46 RCE 1

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended): A method of providing voice responses to commands comprising the steps of:

receiving a first command;

associating said first command with a subscriber to be called;

selecting a first processing option in response to said first command;

providing a voice message indicative of said first processing option selected including identification of said subscriber;

providing a silent delay period of a predetermined duration immediately subsequent to a completion of said step of providing a voice message; and
selectively

(i) initiating alternate processing in response to a receipt of a second command input during said silent delay period, said alternate processing selected from the set of actions consisting of (a) providing listing information for said subscriber, (b) providing an alternate telephone number for said subscriber, (c) receiving a message for said subscriber, and (d) forwarding a voice mail to said subscriber,
and

(ii) initiating said first processing option in response to an absence of said second command input for a duration of said silent delay period to thereby initiate a call to said subscriber.

Claim 2. (original): The method according to claim 1 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

Claim 3. (original): The method according to claim 2 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

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Claim 4. (currently amended): The method according to claim 3 ~~wherein said duration of said silent delay period is 1.8 seconds~~ 1 further comprising the steps of:
pseudorandomly selecting one of a group of content equivalent messages; and
playing the selected message to provide said voice message.

Claim 5. (original): The method according to claim 1 wherein said first command comprises a speech input

Claim 6. (currently amended): A method of telephone dialing using a voice activated dialer including a directory of subscriber names and telephone numbers, the method comprising the steps of:
selecting one of said subscribers most closely corresponding to a first speech input;
providing a speech output corresponding to the selected one of said subscribers;
providing a silent delay period of a predetermined duration immediately subsequent to a completion of said step of providing a speech output; and,
selectively

- (i) initiating alternate processing in response to a receipt of a command input during said silent delay period, said alternate processing selected from the set of actions consisting of (a) announcing one of said telephone numbers associated with the selected one of said subscribers, (b) providing an alternate telephone number of said selected one of said subscribers, (c) receiving a message for said selected one of said subscribers, and (d) recording a voice mail for the selected one of said subscribers, and
- (ii) dialing the telephone number corresponding to the selected one of said subscribers immediately after said delay period and in response to an absence of said command input for a duration of said silent delay period.

Claim 7. (original): The method according to claim 6 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

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Claim 8. (original): The method according to claim 7 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 9. (currently amended): The method according to claim 8 ~~wherein said duration of said silent delay period is 1.8 seconds~~ 6 further comprising the steps of:
pseudorandomly selecting one of a group of content equivalent messages; and
playing the selected message to provide said speech output.

Claim 10. (original): The method according to claim 6 wherein said command input comprises a DTMF audio signal.

Claim 11. (original): The method according to claim 6 wherein said command input comprises a second speech input and said method further comprises a step of listening for said second speech input.

Claim 12. (original): The method according to claim 11 wherein said second speech input comprises a predetermined spoken command.

Claim 13. (original): The method according to claim 11 wherein said second speech input comprises one of a plurality of predetermined spoken commands.

Claim 14. (original): The method according to claim 11 wherein said step of listening includes recognizing said second speech input to provide speech content data and comparing said speech content data with a list of alternative processing commands.

Claim 15. (original): The method according to claim 11 further comprising the steps of:
receiving said first speech input;
recognizing a content of said first speech input; and
comparing said content with said directory.

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Claim 16. (original): The method according to claim 15 wherein said command input comprises a second speech signal and said method further comprises a step of listening for said second speech input.

Claim 17. (original): The method according to claim 16 wherein said step of listening includes the steps of:

receiving said second speech input;
recognizing a content of said second speech input; and
comparing said content with a list of alternative processing commands.

Claim 18. (original): The method according to claim 16 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

Claim 19. (original): The method according to claim 18 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 20. (original): The method according to claim 19 wherein said duration of said silent delay period is 1.8 seconds.

Claim 21. (original): The method according to claim 16 wherein said step of providing a speech output includes retrieving audio data corresponding to said selected one of said subscribers and converting said audio data into said speech output.

Claim 22. (original): The method according to claim 21 wherein said step of converting said audio data into said speech output includes decoding said audio data.

Claim 23. (original): The method according to claim 21 wherein said step of converting said audio data into said speech output includes concatenating a plurality of phonemes.

Claim 24. (original): The method according to claim 21 wherein said step of converting said audio data into said speech output includes a step of synthesizing speech from said audio data.

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Claim 25. (original): The method according to claim 6 wherein said alternate processing includes providing a speech output corresponding to the telephone number of said selected one of said subscribers.

Claim 26. (original): The method according to claim 6 wherein said alternate processing includes providing an alternate telephone number of said selected one of said subscribers.

Claim 27. (original): The method according to claim 26 including dialing said alternate telephone number of said selected one of said subscribers and supplying a data signal corresponding to said selected one of said subscribers to a remote system.

Claim 28. (original): The method according to claim 27 wherein said data signal represents said telephone number of said selected one of said subscribers.

Claim 29. (currently amended): A method of telephone dialing using a voice activated dialer including a directory of subscriber names and telephone numbers, the method comprising the steps of:

receiving a first speech input;

recognizing said first speech input to provide first speech content data;

selecting one of said subscribers most closely corresponding to said first speech content data;

providing a speech output corresponding to the selected one of said subscribers;

providing a silent delay period of a predetermined duration within a range of 1.2 to 2.3 seconds

immediately subsequent to a completion of said step of providing a speech output;

listening for a second speech input during said silent period;

recognizing said second speech input to provide second speech content data; and

selectively (i) initiating alternate processing in response to said second speech content data

including an alternate processing command, said alternate processing selected from the

group of actions consisting of (a) announcing a telephone number of the selected one of

said subscribers, (b) identifying and announcing an alternative telephone number of the

selected one of said subscribers, (c) receiving a message for the selected one of said

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subscribers, and (d) recording a voice mail to the selected one of said subscribers, and, otherwise, (ii) dialing the telephone number corresponding to the selected one of said subscribers immediately after said delay period.

Claim 30. (original): The method according to claim 29 wherein said predetermined duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 31. (currently amended): The method according to claim ~~30 wherein said predetermined duration of said silent delay period is 1.8 seconds~~ 28 further comprising the steps of:

pseudorandomly selecting one of a group of content equivalent messages; and playing the selected message to provide said speech output.

Claim 32. (currently amended): A voice response unit comprising:
means for receiving a first command;
means for selecting a first processing option in response to said first command including identification of a subscriber to be called;
means for providing a voice message indicative of said first processing option selected;
means for providing a silent delay period of a predetermined duration immediately subsequent to a completion of providing said voice message; and
means for selectively (i) initiating alternate processing in response to a receipt of a second command input during said silent delay period, said alternate processing selected from the group of actions consisting of (a) announcing a telephone number of said subscriber, (b) identifying and announcing an alternative telephone number of said subscriber, (c) receiving a message for said subscriber, and (d) recording a voice mail for said subscriber, and (ii) initiating said first processing option in response to an absence of said second command input for a duration of said silent delay period to thereby initiate a call to said subscriber at a primary telephone number.

Claim 33. (original): The voice response unit according to claim 32 wherein said predetermined duration is in a range of 1.2 to 2.3 seconds.

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Claim 34. (original): The voice response unit according to claim 33 wherein said predetermined duration is in a range of 1.5 to 2.0 seconds.

Claim 35. (original): The voice response unit according to claim 33 wherein said predetermined duration of said silent delay period is 1.8 seconds .

Claim 36. (currently amended): A voice activated dialer comprising:
a memory storing a directory of subscriber names and telephone numbers;
comparison means for selecting one of said subscribers most closely corresponding to a first speech input;
speech output means for providing a speech output of one of said subscriber names corresponding to the selected one of said subscribers;
timer means for providing a silent delay period of a predetermined duration immediately subsequent to a completion of providing said speech output; and
control means for selectively (i) initiating alternate processing in response to a receipt of a command input during said silent delay period so as to support alternative establishment of communication with said selected one of said subscribers using means other than calling the telephone number corresponding to the selected one of said subscribers, and (ii) dialing calling the telephone number corresponding to the selected one of said subscribers immediately after said delay period and in response to an absence of said command input for a duration of said silent delay period.

Claim 37. (original): The voice activated dialer according to claim 36 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

Claim 38. (original): The voice activated dialer according to claim 37 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 39. (currently amended): The voice activated dialer according to claim ~~38~~ wherein ~~said duration of said silent delay period is 1.8 seconds~~ 36 further comprising:

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selection means for pseudorandomly selecting one of a group of content equivalent messages, wherein said speech output means provides a speech prompt using said selected one of said messages.

Claim 40. (original): The voice activated dialer according to claim 36 wherein said command input comprises a DTMF audio signal.

Claim 41. (original): The voice activated dialer according to claim 36 wherein said command input comprises a second speech input and said voice activated dialer further speech recognizer means for listening for said second speech input.

Claim 42. (original): The voice activated dialer according to claim 41 wherein said speech recognizer means is responsive to a predetermined spoken command.

Claim 43. (original): The voice activated dialer according to claim 41 wherein said speech recognizer means is responsive to a plurality of predetermined spoken commands.

Claim 44. (original): The voice activated dialer according to claim 41 wherein said recognizer means includes means for processing said second speech input to provide speech content data and means for comparing said speech content data with a list of alternative processing commands.

Claim 45. (original): The voice activated dialer according to claim 36 further comprising:
input means receiving said first speech input;
speech recognition means for recognizing a content of said first speech input; and
processing means for comparing said content with said directory.

Claim 46. (original): The voice activated dialer according to claim 45 wherein said command input comprises a second speech signal and said voice activated dialer further includes speech recognition means for recognizing said second speech input.

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Claim 47. (original): The voice activated dialer according to claim 46 wherein said speech recognition means includes:

an input receiving said second speech input;

speech processing means for recognizing a content of said second speech input; and

processor means for comparing said content with a list of alternative processing commands.

Claim 48. (original): The voice activated dialer according to claim 47 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

Claim 49. (original): The voice activated dialer according to claim 48 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 50. (original): The voice activated dialer according to claim 49 wherein said duration of said silent delay period is 1.8 seconds .

Claim 51. (original): The voice activated dialer according to claim 36 wherein said speech output means includes a memory storing audio data corresponding to said selected one of said subscribers and audio player means for converting said audio data into said speech output.

Claim 52. (currently amended): A voice activated dialer comprising:
a memory storing a directory of subscriber names and telephone numbers;
a speech recognition engine receiving a speech input and providing content data derived from said speech input signal;
a processor responsive to said content data for selecting one of said subscribers;
an audio output providing a speech signal corresponding to the selected one of said subscribers;
and
a timer providing a silent delay period of a predetermined duration immediately subsequent to a completion of providing said speech signal,
wherein said processor selectively (i) initiates alternate processing in response to a receipt of a command input during said silent delay period, said alternate processing selected from the group of actions consisting of (a) providing a speech output corresponding to one of

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said telephone numbers associated with the selected one of said subscribers, (b) identifying an alternate telephone number associated with the selected one of said subscribers, (c) receiving a message for said selected one of said subscribers, and (d) recording a voice mail to said selected one of said subscribers, and (ii) initiates a dialing of the telephone number corresponding to the selected one of said subscribers immediately after said delay period and in response to an absence of said command input for a duration of said silent delay period.

Claim 53. (original): The voice activated dialer according to claim 52 wherein said duration of said silent delay period is in a range of 1.2 to 2.3 seconds.

Claim 54. (original): The voice activated dialer according to claim 53 wherein said duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 55. (currently amended): A voice activated dialer comprising:
a memory storing a directory of subscriber names and telephone numbers;
a speech recognition engine responsive to a speech input for providing speech content data; and
a processor responsive to said speech content data and to a set of instructions for
(i) selecting one of said subscribers most closely corresponding to first speech content data;
(ii) providing a speech output corresponding to the selected one of said subscribers;
(iii) providing a silent delay period of a predetermined duration within a range of 1.2 to 2.3 seconds immediately after providing said speech output;
(iv) initiating alternate processing in response to second speech content data including an alternate processing command selected from the group of commands consisting of (a) providing a speech output corresponding to one of said telephone numbers associated with the selected one of said subscribers, (b) identifying an alternate telephone number associated with the selected one of said subscribers, (c) receiving a message for the selected one of said subscribers, and (d) initiating a voice mail to the selected one of said subscribers, and, otherwise, (ii) dialing the telephone number corresponding to the selected one of said subscribers immediately after said delay period.

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Claim 56. (original): The voice activated dialer according to claim 55 wherein said predetermined duration of said silent delay period is in a range of 1.5 to 2.0 seconds.

Claim 57. (currently amended): The voice activated dialer according to claim ~~56 wherein said predetermined duration of said silent delay period is 1.8 seconds~~ 55 wherein said processor is further responsive to said set of instructions for:

selecting one of a group of content equivalent messages; and
playing the selected message to provide a spoken prompt.

Claim 58. (currently amended): A method of providing voice responses to commands comprising the steps of:
receiving a spoken identifier;
attempting recognition of said spoken identifier to identify a subscriber;
selecting a first processing option in connection with said subscriber;
providing a voice message indicative of said first processing option;
providing a silent delay period of a predetermined duration immediately subsequent to a completion of said step of providing a voice message, and selectively (i) initiating alternate processing in connection with said subscriber in response to a receipt of, and consistent with, a second command input during said silent delay period, said alternate processing selected from the group of actions consisting of (a) providing a speech output corresponding a first telephone number associated with the subscriber, (b) identifying an alternate telephone number associated with the subscriber, (c) receiving a message for the subscriber, and (d) initiating a voice mail to the subscriber, and (ii) initiating said first processing option in connection with said subscriber in response to an absence of said second command input for a duration of said silent delay period.

Claim 59. (currently amended): A method of telephone dialing using a voice activated dialer including a directory of subscriber names and telephone numbers, the method comprising the steps of:
selecting one of said subscribers most closely corresponding to a first speech input;
providing a speech output corresponding to the selected one of said subscribers;

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providing a silent delay period of a predetermined duration immediately subsequent to a completion of said step of providing a speech output; and
selectively (i) initiating alternate processing related to the selected one of the subscribers in response to a receipt of a command input identifying said alternate processing during said silent delay period, said alternate processing selected from the group of actions consisting of (a) providing a speech output corresponding to one of said telephone numbers associated with the selected one of said subscribers, (b) identifying an alternate telephone number associated with the selected one of said subscribers, and (c) initiating a voice message to said selected one of said subscribers, and (ii) dialing the telephone number corresponding to the selected one of said subscribers immediately after said delay period and in response to an absence of said command input for a duration of said silent delay period.

Claim 60. (previously presented): A method of telephone dialing using a voice activated dialer including a directory of subscriber names and telephone numbers, the method comprising the steps of:

receiving a first speech input;
recognizing said first speech input to provide first speech content data;
selecting one of said subscribers most closely corresponding to said first speech content data;
providing a speech output corresponding to the selected one of said subscribers;
providing a silent delay period of a predetermined duration within a range of 1.2 to 2.3 seconds immediately subsequent to a completion of said step of providing a speech output;
listening for a second speech input during said silent period;
recognizing said second speech input to provide second speech content data; and
selectively (i) initiating alternate processing related to the selected one of said subscribers in response to said second speech content data including an alternate processing command, said alternate processing selected from the group of actions consisting of (a) providing a speech output corresponding to one of said telephone numbers associated with the selected one of said subscribers, (b) identifying an alternate telephone number associated with the selected one of said subscribers, (c) receiving a message for the selected one of said subscribers, and (d) initiating a voice mail to the selected one of said subscribers,

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and, otherwise, (ii) dialing the telephone number corresponding to the selected one of said subscribers immediately after said delay period.

61. (Previously presented) The method according to claim 60 wherein said error processing includes the steps of:

prompting for a third speech input;
performing speech recognition of said third speech input to reselect a designated subscriber;

playing a voice message indicative of said first processing option in connection with said reselected designated subscriber;

providing a second silent delay period immediately subsequent to a completion of said playing step in connection with said reselected designated subscriber; and

selectively (i) identifying a third processing option specified by a fourth speech input and, in response, automatically initiating said third processing option in connection with said reselected designated subscriber (ii) automatically initiating said first processing option in connection with said reselected designated subscriber in response to an absence of said fourth speech input during said second silent period.--

62. (Previously presented) The method according to claim 61 further comprising the steps of:

dialing a telephone number of said reselected designated subscriber in response to said step of automatically initiating said first processing option; and

performing said third processing in response to said step of automatically initiating said third processing option, said third processing selected from the group consisting of (i) providing a listing of said reselected designated subscriber, (ii) leaving a message for said reselected designated subscriber, and (iii) accepting a voice mail for said reselected selected subscriber.--